



Notification of Reason for Refusal

Patent Application No.	Patent Application No. 2003-410873
Drafting Date	May 1, 2008
Examiner of JPO	Osamu KAWABATA 8718 3I00
Representative/Applicant	Mr. Tatsuya MASUDA et al.
Applied Provision	Patent Law Section 29(2), Section 37

This application should be refused for the reasons mentioned below. If the applicant has any argument against the reasons, such argument should be submitted within 60 days from the date on which this notification was dispatched.

Reasons

1. This application does not comply with the requirements under Patent Law Section 37 in regard to the following point.

Note

Whereas a substantial part of the invention of claim 1 is that a porosity of a pellet-form bone prosthesis is no more than 75%, a substantial part of the invention of claim 2 is that a crushing strength of a pellet-form bone prosthesis is no less than 15Mpa and there is no substantial part in common.

2. The invention(s) in the claim(s) mentioned below of the subject application should not be granted a patent under Patent Law Section 29(2) since it could have easily been made by persons having common knowledge in the technical field to which the invention pertains, on the basis of an invention(s) described in the publication(s) mentioned below, which was distributed in Japan or foreign countries, or an invention(s) made useable to the public through electric telecommunication lines prior to the filing of the subject application.

Note (The list of cited documents etc., is shown below.)

- Claims 1 to 22
- Cited Documents 1 to 5
- Remarks:

It is disclosed in cited example 1 that a laminoplasty spacer is constituted of a block of hydroxyapatite, that the laminoplasty spacer is a bone prosthesis, that a porosity is preferably 0 to 70% and more preferably 30 to 50% ([0040]), and that a surface of a vertebral arch positioned at an outer surface side is inclined with respect to a normal to a surface in contact with a cut surface of a vertebral arch at a vertebra side. It is also disclosed in publication 1 that, among calcium

phosphate based compounds, that with a Ca/P ratio of 1.0 to 2.0 is preferably used ([0038]) and it is disclosed that in an embodiment, the Ca/P ratio of a hydroxyapatite slurry is set to 1.67 ([0053]).

In cited example 2 is described a porous biomedical ceramic member suited for an artificial bone or artificial bone prosthesis and it is disclosed that the porosity must be no more than 65% to attain a compressive strength of approximately 30MPa ([0031]) and a porous member with a compressive strength of no less than 13.1MPa is disclosed (FIG. 7, [0007]).

In cited example 3 is described a spine prosthesis insertingly positioned between spinal vertebrae, and it is disclosed that the spine prosthesis is a hexahedron, having an upper surface and a lower surface in contact with upper and lower vertebrae, and that an angle  $\theta$  formed by these surfaces can be selected as suited within a range of 1 to 13° in accordance with the insertion position ([0011], [FIG. 1]).

In cited example 4 is disclosed a bone prosthesis compact, constituted of a sintered compact of a calcium phosphate compound, having, in an interior of the sintered compact, one or more pores with a pore diameter of 1 to 600 microns and microgap passages connecting the pores to an exterior of the sintered compact or the pores to each other, and formed to a shape enabling

adaptation and filling of a fractured portion, a lost portion, a gap portion, an aged portion, or a bone tumor portion of a bone of a human body or animal, and a bone prosthesis compact, with which the sintered compact of the calcium phosphate compound has a porosity of 40 to 90%.

In cited example 5, it is indicated that in a region of low porosity, a three-point bending strength is no less than 30MPa.

The invention of claims 1 to 22 of the present application is perceived to be a combination of cited examples 1 to 5.

The list of cited documents etc.

1. Japanese Unexamined Patent Publication No. 2001-79024
2. Japanese Unexamined Patent Publication No. 2002-113090
3. Japanese Unexamined Patent Publication No. Hei-08-10276
4. Japanese Unexamined Patent Publication No. Sho-61-170471
5. Japanese Unexamined Patent Publication No. 2001-206787

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Record of the result of prior art search

• Technical fields to be searched Int. Cl. A61F 2/00

This record of the result of prior art search does not constitute a reason for refusal.

Please contact the person at the following address if you have any questions or desire to hold a meeting, etc., concerning the contents of this notification of reason for refusal.

Second Patent Examination Department,  
Nursing, Medical Treatment and Service Apparatus Division  
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